

Product Name **SODIUM ALUMINATE SOLUTION (COOGEE)**

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Supplier Name COOGEE CHEMICALS
Address Cnr of Patterson and Kwinana Beach Roads, Kwinana, WA, AUSTRALIA, 6167
Telephone (08) 9439 8200
Fax (08) 9439 8300
Emergency 1800 800 655
Email businessrelations@coogee.com.au
Web Site http://www.coogee.com.au

Synonym(s) NAALO2 • SODIUM ALUMINATE LIQUID

Use(s) ALUMINIUM PRODUCTION • CEMENT ADDITIVE • PROCESS REAGENT

2. HAZARDS IDENTIFICATION

CLASSIFIED AS HAZARDOUS ACCORDING TO ASCC CRITERIA

RISK PHRASES

R35 Causes severe burns.
R41 Risk of serious damage to eyes.

SAFETY PHRASES

S1/2 Keep locked up and out of reach of children.
S24/25 Avoid contact with skin and eyes.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S37/39 Wear suitable gloves and eye/face protection.
S45 In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).

CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

UN No.	1819	DG Class	8	Subsidiary Risk(s)	None Allocated
Packing Group	II	Hazchem Code	2R	EPG	8A1

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Ingredient	Formula	CAS No.	Content
SODIUM ALUMINATE	Na-Al-O2	1302-42-7	43%
WATER	H2O	7732-18-5	>50%

4. FIRST AID MEASURES

Eye If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.

Inhalation If inhaled, remove from contaminated area. To protect rescuer, use an Air-line respirator where an inhalation risk exists. Apply artificial respiration if not breathing.

Skin If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.

Ingestion For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting.

Advice to Doctor CORROSIVE POISONING TREATMENT: Immediate treatment preferably in a hospital is mandatory. In treating corrosive poisoning, DO NOT INDUCE VOMITING; DO NOT ATTEMPT GASTRIC LAVAGE; and DO NOT ATTEMPT TO NEUTRALISE THE CORROSIVE SUBSTANCE. Vomiting will increase the severity of damage to the oesophagus as the corrosive substance will again come in contact with it. Attempting gastric lavage may result in perforating either the oesophagus or stomach.

Product Name SODIUM ALUMINATE SOLUTION (COOGEE)

Immediately dilute the corrosive substance by having the patient drink milk or water. If the trachea has been damaged tracheostomy may be required. For oesophageal burns begin broad-spectrum antibiotics and corticosteroid therapy. Intravenous fluids will be required if oesophageal or gastric damage prevents ingestion of liquids. Long-range therapy will be directed toward preventing or treating oesophageal scars and strictures.

5. FIRE FIGHTING MEASURES

Flammability	Non flammable. May evolve toxic gases if strongly heated. May evolve flammable hydrogen gas in contact with some metals.
Fire and Explosion	Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.
Extinguishing	Prevent contamination of drains or waterways.
Hazchem Code	2R

6. ACCIDENTAL RELEASE MEASURES

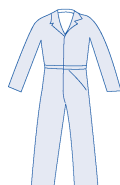
Spillage	If spilt (bulk), use personal protective equipment. Contain spillage, then cover / absorb spill with non-combustible absorbant material (vermiculite, sand, or similar), collect and place in suitable containers for disposal. Prevent spill entering drains or waterways. CAUTION: Spill site may be slippery.
-----------------	--

7. STORAGE AND HANDLING

Storage	Store in a cool, dry, well ventilated area, removed from oxidising agents, acids, active metals, heat or ignition sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. Large storage areas should be bunded and have appropriate ventilation systems. Store tightly sealed, as carbon dioxide from the atmosphere will eventually destabilise the powder.
Handling	Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Exposure Stds	SODIUM ALUMINATE ES-TWA: 2 mg/m ³ as Aluminium		
Biological Limits	No biological limit allocated.		
Engineering Controls	Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended. In a laboratory situation use under a fume cupboard or other localised extraction ventilation equipment. Maintain dust levels below the recommended exposure standard.		
PPE	Wear splash-proof goggles, rubber or PVC gloves and coveralls. When using large quantities or where heavy contamination is likely, wear: a PVC apron and rubber boots. In a laboratory situation, wear: a laboratory coat.		

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	LIGHT YELLOW LIQUID	Solubility (Water)	SOLUBLE
Odour	ODOURLESS	Specific Gravity	1.48
pH	> 13	% Volatiles	NOT AVAILABLE
Vapour Pressure	NOT AVAILABLE	Flammability	NON FLAMMABLE
Vapour Density	NOT AVAILABLE	Flash Point	NOT RELEVANT
Boiling Point	125°C	Upper Explosion Limit	NOT RELEVANT

Product Name **SODIUM ALUMINATE SOLUTION (COOGEE)**

Melting Point NOT AVAILABLE Lower Explosion Limit NOT RELEVANT
Evaporation Rate NOT AVAILABLE

10. STABILITY AND REACTIVITY

Chemical Stability Stable under recommended conditions of storage.
Conditions to Avoid Avoid contact with incompatible substances.
Material to Avoid Incompatible with oxidising agents (eg. hypochlorites), acids (eg. nitric acid) and metals.
Decomposition May evolve toxic gases if heated to decomposition.
Hazardous Reactions Polymerization is not expected to occur.

11. TOXICOLOGICAL INFORMATION

Health Hazard Summary Highly corrosive. This product has the potential to cause serious adverse health effects. Use safe work practices to avoid eye or skin contact and inhalation. Over exposure may result in severe skin, eye and respiratory burns with possible permanent tissue damage. Upon dilution, the potential for adverse health effects may be reduced.
Eye Highly corrosive. Contact may result in irritation, lacrimation, pain, redness, conjunctivitis and corneal burns with possible permanent damage.
Inhalation Corrosive. Over exposure may result in irritation of the nose and throat, coughing and bronchitis. High level exposure may result in ulceration of the respiratory tract, lung tissue damage, chemical pneumonitis and pulmonary oedema. Effects may be delayed.
Skin Corrosive. Contact may result in irritation, redness, pain, rash, dermatitis and possible burns. Effects may be delayed.
Ingestion Highly corrosive. Ingestion may result in burns to the mouth and throat, nausea, vomiting, abdominal pain and diarrhoea. Ingestion of large quantities may result in ulceration, unconsciousness, convulsions and death.
Toxicity Data No LD50 data available for this product.

12. ECOLOGICAL INFORMATION

Environment WATER: If released to waterways, alkaline products may change the pH of the waterway. Fish will die if the pH reaches 10-11 (goldfish 10.9, bluegill 10.5). SOIL: May leach to groundwater with toxic effects on aquatic life as above. ATMOSPHERE: Not expected to reside in the atmosphere. Drops or particles released to atmosphere should be removed by gravity and/or be rained out.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Neutralise with dilute acid (eg. 3 mol/L hydrochloric acid) or similar. For small amounts absorb with sand or similar and dispose of to an approved landfill site. Contact the manufacturer for additional information.
Legislation Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION



CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

Shipping Name	SODIUM ALUMINATE SOLUTION			Subsidiary Risk(s)	None Allocated
UN No.	1819	DG Class	8	EPG	8A1
Packing Group	II	Hazchem Code	2R		

Product Name **SODIUM ALUMINATE SOLUTION (COOGEE)**

IATA

Shipping Name SODIUM ALUMINATE SOLUTION
UN No. 1819 DG Class 8 Subsidiary Risk(s) None Allocated
Packing Group II

IMDG

Shipping Name SODIUM ALUMINATE SOLUTION
UN No. 1819 DG Class 8 Subsidiary Risk(s) None Allocated
Packing Group II

15. REGULATORY INFORMATION

Poison Schedule Classified as a Schedule 6 (S6) Poison using the criteria in the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).

AICS All chemicals listed on the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

Additional Information EXPOSURE STANDARDS - TIME WEIGHTED AVERAGES: Exposure standards are established on the premise of an 8 hour work period of normal intensity, under normal climatic conditions and where a 16 hour break between shifts exists to enable the body to eliminate absorbed contaminants. In the following circumstances, exposure standards must be reduced: strenuous work conditions; hot, humid climates; high altitude conditions; extended shifts (which increase the exposure period and shorten the period of recuperation).

WORKPLACE CONTROLS AND PRACTICES: Unless a less toxic chemical can be substituted for a hazardous substance, ENGINEERING CONTROLS are the most effective way of reducing exposure. The best protection is to enclose operations and/or provide local exhaust ventilation at the site of chemical release. Isolating operations can also reduce exposure. Using respirators or protective equipment is less effective than the controls mentioned above, but is sometimes necessary.

ABBREVIATIONS:

ADB - Air-Dry Basis.

BEI - Biological Exposure Indice(s)

CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds.

CNS - Central Nervous System.

EINECS - European INventory of Existing Commercial chemical Substances.

IARC - International Agency for Research on Cancer.

M - moles per litre, a unit of concentration.

mg/m³ - Milligrams per cubic metre.

NOS - Not Otherwise Specified.

NTP - National Toxicology Program.

OSHA - Occupational Safety and Health Administration.

pH - relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).

ppm - Parts Per Million.

RTECS - Registry of Toxic Effects of Chemical Substances.

TWA/ES - Time Weighted Average or Exposure Standard.

HEALTH EFFECTS FROM EXPOSURE:

It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a Chem Alert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this Chem Alert report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

COLOUR RATING SYSTEM: RMT has assigned all Chem Alert reports a colour rating of Green, Amber or Red for the sole purpose of providing users with a quick and easy means of determining the hazardous nature of a

Product Name **SODIUM ALUMINATE SOLUTION (COOGEE)**

product. Safe handling recommendations are provided in all Chem Alert reports so as to clearly identify how users can control the hazards and thereby reduce the risk (or likelihood) of adverse effects. As a general guideline, a Green colour rating indicates a low hazard, an Amber colour rating indicates a moderate hazard and a Red colour rating indicates a high hazard.

While all due care has been taken by RMT in the preparation of the Colour Rating System, it is intended as a guide only and RMT does not provide any warranty in relation to the accuracy of the Colour Rating System. As far as is lawfully possible, RMT accepts no liability or responsibility whatsoever for the actions or omissions of any person in reliance on the Colour Rating System.

Report Status This Chem Alert report has been independently compiled by RMT's scientific department utilising the original Material Safety Data Sheet ('MSDS') for the product provided to RMT by the manufacturer. The information is based on the latest chemical and toxicological research and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue.

This Chem Alert report does not constitute the manufacturer's original MSDS and is not intended to be a replacement for same. It is provided to subscribers of Chem Alert as a reference tool only, is not all-inclusive and does not represent any guarantee as to the properties of the product. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer.

While RMT has taken all due care to include accurate and up-to-date information in this Chem Alert report, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this Chem Alert report.

Prepared By Risk Management Technologies
5 Ventnor Ave, West Perth
Western Australia 6005
Phone: +61 8 9322 1711
Fax: +61 8 9322 1794
Email: info@rmt.com.au
Web: www.rmt.com.au

Last Reviewed: 16 Jul 2010

Date Printed: 19 Jul 2010

End of Report